CHRISTINA R. RICHEY, PHD

626.375.9161 ▪ Christina.R.Richey@jpl.nasa.gov
https://en.wikipedia.org/wiki/Christina_Richey
https://linkedin.com/in/christina-richey-a8799498

SENIOR SCIENCE, POLICY, AND ACADEMIC LEADER

10+ years' success growing and driving the understanding, assessment, development, and utilization of space

Multifaceted, driven, and results-oriented strategic leader with broad research, administration, and management experience, and proven expertise overseeing and driving space science programs. Strategic ideation with exceptional communication skills and thorough knowledge all administrative aspects of grant management and funding, ensuring that project milestones and budgets are met and satisfying contractual reporting requirements. Highly organized with a talent for unpacking extraordinarily complex scenarios, creatively solving problems, and delivering new programs and protocols that lead to advancements in space operations. Ability to apply intellectual curiosity and analytical skills to identify operational weaknesses, ability to negotiate, manage, and produce positive results within a diverse environment. Passionate advocate, policy developer, and driver for diversity and inclusion in the workplace.

HIGHLIGHTS OF EXPERTISE

- ✓ Operations and Administration
- ✓ Team Leadership
- ✓ Grants and Financial Management
- ✓ Physics and Astronomy
- ✓ Policy Development
- ✓ Full Program Administration
- ✓ High Emotional Intelligence
- ✓ Diversity and Inclusion Leadership
- ✓ Space Science SME
- ✓ Crisis Communications
- ✓ Mission Spokesperson
- ✓ Media Relations

AWARDS

- NASA Group Achievement Award, OSIRIS REx EGA Team (2018)
- NASA Group Achievement Award, OSIRIS REx Launch Team (2017)
- UAB Rising Star Alumni Award (2017)
- UAB College of Arts & Sciences Trailblazing Alumni of the Year Award (2016)
- Asteroid (151835)Christinarichey (2016)
- Youngest ever recipient of the Harold Masursky Award for Career Meritorious Service in Planetary Sciences (2015)
- Wheeling Jesuit University Distinguished Alumni Scholar in Residence (2015); determined by tenure and Board vote.
- Wheeling Jesuit University James O'Brien Alumni Award (2015)
- NASA Headquarters Special Service Award (2014)
- Outstanding Service to the Department & Community Award from the UAB Dept. of Physics (2011)

KEY ACHIEVEMENTS

- Hands-on management of Exoplanets Research Program (Cross-Divisional w/ Astrophysics Division, $6M/yr); Origins of Solar Systems ($6M/yr); Cassini Data Analysis & Participating Scientist Program ($5.5M/yr); Discovery Data Analysis Program ($3.6M/yr).
- Deputy Program Scientist for OSIRIS-REx Mission (New Frontiers Mission).
- Wrote, edited, and released the omnibus Research Opportunities in Space and Earth Sciences (ROSES) solicitation, as well as edited the NASA Guidebook for Proposer, and maintained ROSES via amendments and clarifications, including increasing diversity initiatives and accessibility.
- Reached metric of 80% selection in 180 days for all programs as Lead Discipline Scientist; participated as an integral team member of OSIRIS-REx launch campaign; acted as main spokesperson for NASA HQ for all OSIRIS-REx mission media events.

continued…

CAREER EXPERIENCE

JET PROPULSION LABORATORY, Pasadena, CA 2/2018 – Present

PROGRAM MANAGER, SOLAR SYSTEM EXPLORATION SCIENCE RESEARCH & ANALYSIS OFFICE

PROPOSAL TECHNOLOGIST, ASTROPHYSICS AND SPACE SCIENCE SECTION

PROJECT STAFF SCIENTIST, EUROPA CLIPPER MISSION

Provides administrative leadership with the Europa Clipper team, through organizing Project Science Group activities (including science team meetings) and through liaising between the Thematic Working and Focus Groups. Provides guidance on the proposal process for the section and division, and trains researchers within the community on best practices for proposal submission and review and compiling and releasing information about R&A awards. Advocates for institutional solar system (including Mars, Moon) research and researchers, including the formulation of new areas of planetary science R&A. Responsible for managing the submission of all planetary science R&A proposals to a wide variety of NASA's ROSES NRAs, including the distribution of B&P funds to JPL scientists so they can generate their proposals. Provides leadership to Discipline Program Managers (DPMs) and accountable Principal Investigator Task Mangers in working with Business Administration to assure effective financial planning and accountability of funded R&A tasks. Assists in internal peer review of proposals, which is coordinated through Discipline Program Managers (DPMs). Works with the Technical Divisions to nurture planetary scientists and to develop science capabilities, laboratory and computational facilities. Manages for the Directorate Chief Scientist the Distinguished Visiting Scientist (DVS) contracts. Previously worked with the Planetary Concept Instrumentation Office on education and engagement opportunities. Previously a member of the Architecture-team at the JPL Innovation Foundry.

FUNDING AWARDS:

- 2018 NASA ROSES TWSC Program, Proposal Writing Workshops, PI: Christina Richey, $445k
- 2018 JPL Raise the Bar Program, AAS CSWA Workplace Climate Survey, $12k
- 2018 JPL Raise the Bar Program, JPL-Internal ROSES Review Processes, $16k

NASA HQ, Washington, DC 2/2013 – 02/2018

SENIOR SCIENTIST, PLANETARY SCIENCE DIVISION

DEPUTY SCIENCE ADVISOR FOR RESEARCH AND ANALYSIS, MISSION DIRECTORATE

Provided operational, administrative, and technical strategic leadership for the research and development of planetary science technologies. Directed science, technology, and engineering goals for the organization, higher echelons, national and international organizations, and industry and academia. Drove the development, integration and deployment of science and analytical capabilities, including data architecture, standards, business intelligence, and visualization. Leveraged best management practices to establish work breakdown structures, task dependencies, risk assessment, resource requirements, budgets and allocation, communication and reporting protocols, internal and external reviews, schedules, and priorities. Served as subject matter expert and execute a continuity of technical leadership and oversight to ensure long term stewardship of organization's science and technical capabilities. Developed solicitations and lead evaluation of research proposals for grant processes, including initiating and monitoring research contracts, grants, and cooperative agreements.

- Oversaw administration of programs, including strategic planning, budget analysis, and allocation of funding for multi-million-dollar programs; provided technical advice on costs and economics related to programs; managed external agreements, grants, and contracts; presented senior leadership with findings and solutions.
- Provided technical decisions, advice, and consultations affecting the planning, management, coordination, and critical problems related to safety, costs, and economics of the OSIRIS-REx space mission.

- Reviewed system management, survey design, collection, interpretation, and collection of data in support of Science Mission Directorate as well as other STEM decision-making initiatives.
- Developed and implemented an infrastructure for evaluation activities, including peer review; developed performance metrics and annual performance indicators to awardees and mission teams; developed principles and policy pertaining to the evaluation of research programs.
- Identified critical science, technology, research, and development needs and devised technology attainment strategies in the areas of space science planning and program development.
- Developed technology road maps and collaborated with functional leaders on strategies to fill required human resources, facility, instrumentation, and financial resources to fulfill scientific requirements.
- Worked at the highest levels of NASA to mitigate implicit bias and create opportunities for diversity practices in the review process, including adding diversity language into ROSES and ensuring ROSES and NASA Guidebook for Proposers were in accessible font for those with visual disabilities.
- Adapted the policies of both the review process and internal job description of Program Officers to include Implicit Bias training and Under-Represented Minority percentage requirements on review panels.

NASA GODDARD SPACE FLIGHT CENTER, Columbia, MD 8/2011 – 2/2013

NASA POSTDOCTORAL PROGRAM FELLOW

- Conducted research of national importance and collaborated with U.S. and international researchers to advance NASA's missions in space science.
- Postdoctoral Work: Optical Properties of Dust Grain Analogs in the Near-Infrared to Sub-Millimeter as a Function of Wavelength, Temperature, & Composition.

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM, Birmingham, AL 8/2004 – 8/2011

INSTRUCTOR (2011)

GRADUATE ASSISTANT, NATURAL NEED FELLOW (2009-11)

GRADUATE ASSISTANT, PHYSICS (2008-09)

ALABAMA SPACE GRANT CONSORTIUM GRADUATE FELLOW (2005-08)

- Performed adult instruction and administration within University Physics department to promote the understanding, development, and advancement of space science.

EDUCATION

DOCTOR OF PHILOSOPHY (PHD), PHYSICS

The University of Alabama at Birmingham, Birmingham, AL

Dissertation Title: Near-Infrared Spectroscopy of Ices Under Conditions Relevant to Interstellar & Planetary Environments

MASTER OF SCIENCE, PHYSICS

The University of Alabama at Birmingham, Birmingham, AL

BACHELOR OF SCIENCE, PHYSICS

Wheeling Jesuit University, Wheeling, WV

POLICY AND DIVERSITY LEADERSHIP

Member, Hubble Space Telescope Anonymizing Proposal Review Working Group (2017-18)
Co-Chair, American Astronomical Society (AAS) Division for Planetary Sciences Professional Culture and Climate Subcommittee (2016-17)
Member, NASA Headquarters Working Group on Implicit Bias in Peer Review (2016-18)
Member, Wheeling Jesuit University Alumni Council (2015–2018)
Chair, AAS Committee on the Status of Women in Astronomy; Crisis Comms Team for AAS (2015-17)
Member, AAS Committee on the Status of Women in Astronomy (2013-15, 2017-present)
Member, NASA GSFC Women in Astrophysics Roundtable Steering Committee (2012-13)
President, NASA Goddard Association of Postdoctoral Scholars (2012-13)
Member, AAS Division for Planetary Sciences Federal Relations Subcommittee (2010-13)
Vice President and Board Member, UAB Chapter, Scientists for Engineers for America (2010-11)

PROFESSIONAL AFFILIATIONS

American Astronomical Society (AAS)
AAS Laboratory Astrophysics Division
AAS Division for Planetary Sciences
American Physical Society
American Geophysical Union
American Institute of Physics
Golden Key International Honor Society
Association for Women in Science
Union of Concerned Scientists
American Association for the Advancement of Science

PUBLICATIONS AND PRESENTATIONS

Selected Publications

Richey, C.R., Lee, K.M.N., Rodgers, E.M., & Clancy, K.B.H., Sexual and gender minorities in astronomy and planetary science face increased risks of harassment and assault, Bulletin of Am. Astronomical Society, in review (2019).

Clancy, K.B.H., Lee, K.M.N., Rodgers, E.M., & Richey, C.R., Double jeopardy in astronomy & planetary science: Women of color face greater risks of gendered & racial harassment, J. Geophys. Res. Planets, 112, doi:10.1002/2017/JE005256 (2017).

Burleigh, M.R., Richey, C.R., Rinehart, S.A., Quijada, M.A., & Wollack, E.J., Spectrometer baseline control via spatial filtering, Applied Optics 55, 29, 8201-8206 (2016).

Richey, C.R., Rinehart, S.A., Kinzer, R.E., Cataldo, G., Wollack, E., Nuth, J., Benford, D., Silverberg, R., Optical Properties of Iron Silicates in the Infrared to Millimeter as a Function of Wavelength & Temperature, Astrophysical Journal 770, 46 (2013).

Richey, C.R., Gerakines, P.A., Near-Infrared Band Strengths of Molecules Diluted in N2 & H2O Ice Mixtures Relevant to Interstellar & Planetary Ices, Astrophysical Journal, 759, 74 (2012).

Gerakines, P.A., Bray, J.J., Davis, A., Richey, C.R., The Strengths of Near- Infrared Absorption Features Relevant to Interstellar & Planetary Ices, Astrophysical Journal 620, 1140 (2005).

Selected Presentations

The DPS Harold Masursky Prize Lecture on Workplace Climate, 47th Annual Division for Planetary Sciences Conference, http://data.boulder.swri.edu/ksinger/Richey_2015_DPS_Masursky_Talk.pdf

The OSIRIS-REx Mission Science Briefing, T-2 days from launch briefing at NASA Kennedy Space Center: https://spaceflightnow.com/2016/09/06/video-atlasosiris-rex-pre-launch-and-mission-science-press-briefings/